VARICOCELE.

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The word varicocele (fr. varix=a dilated vein+κηλη= a tumor) is one of those uncouth, but convenient hybrids, with which our language is so full. Cirsocele, incorrectly circocele (κιρσος=a varix+κηλη=a tumor) is more correct, but is almost obsolete. Both terms, etymologically speaking, indicate a varicose tumor in any part of the body, but custom has limited them to the scrotal region. Pott proposed cirsocele for a varicose condition of the veins of the scrotum, and varicocele for the same condition of the veins of the spermatic cord, but at present, the former term rarely occurs in English medical literature.

Varicocele consists of a dilatation and increased tortuosity of the veins of the cord, which begins at the upper level of the testes and extends to the lower opening of the inguinal canal, and sometimes into the abdominal cavity. It rarely originates before puberty or later than the thirty-fifth year, and occurs indifferently in healthy and debilitated individuals. As far as my observations go, I am unable to say that habits of chastity affect its frequency, for I have found it in married and single men of both chaste and licentious habits. It is an

affection of frequent occurrence, Mr. Holmes stating that it occurs in one of every ten adult individuals; but this seems to me to be too high an estimate. It may occur on both sides, but is most frequently confined to the left, and I have never known of a case in which the right side alone was affected. Its frequency is due to the length of the veins, their free anastomosis, their dependent position and utter lack of support from soft parts, and the pressure to which they are subjected in the inguinal canals. The frequency of occurrence on the left side is due to the unusual length of the left spermatic vein, its absence of valves, its abrupt termination in the renal vein and the pressure to which it is subjected by the large intestine. There is little difficulty in the diagnosis of varicocele, because of its shape, the peculiar sensation which it gives to the touch—as of a bag filled with earth-worms—and the readiness with which it disappears on assuming the recumbent position, or on the elevation of the parts.

In old persons, small hard bodies may sometimes be found in the dilatations of the veins, which are due to fibrinous deposits from the slowly circulating blood or to phlebolites.

In most cases, the presence of a varicocele causes only slight inconvenience from its weight, but when it increases in size there may be much dragging pain and an eventual atrophy of the testes. Not infrequently its irritation causes nocturnal seminal emissions, with many depressing nervous symptoms, and occasionally the veins become inflamed, or they may become injured by external violence. Mr. Pott relates a case in which rupture took place, and Mr. Erichsen records one where death occurred from hemorrhage following rupture.

It is not often that operative measures should be resorted to in the treatment of varicocele, for in most cases, palliative treatment is all that is required; but where, on account of its presence, the individual is excluded from the government service; where the testes are becoming soft and atrophied; where the absence

of spermatozoa, in sterility, has been demonstrated; where the nervous symptoms are grave and apparently due to this cause, and where the patient's occupation is seriously interfered with or his safety endangered by its size, the radical cure should be undertaken. As palliatives, purging and low diet; general and local bloodletting; cold, astringent and volatile lotions; sea bathing, the cold douche and tonics, have all been used, and with beneficial results. Some have drawn a part of the skin of the scrotum through a soft metal or vulcanized rubber ring, so as to compress the veins, but cases of sloughing have been reported. Various forms of suspensory bandages have been devised, of which Morgan's is probably best. In this, after tightly lacing up the testis, it is elevated by tapes attached to its base and fastened around the waist. But a well-fitting truss is probably the best of all palliative measures, and in many cases it has a curative effect.

Bonnet, Philippeaux and Rigaud used Vienna paste and chloride of zinc to the scrotum to produce a radical cure, and obtained some good results, but these barbarous means have been abandoned, as has also castration. Sir A. Cooper proposed curtailment of the scrotum, and this measure has its ardent advocates at the present day, but it aims at the removal of one of the effects and not at the cause of the trouble, and, consequently, is only partially successful. Injections of astringent and styptic solutions have been used to obliterate the veins, and Horteloup and Le Dentu have advised clamps for the same purpose, but the results obtained have been very unsatisfactory. Various methods for the subcutaneous ligation or division of the veins have been practiced by Vidal (de Cassis), Ricord, Lee, Agnew, Keyes, Gould and others, in which silver wire, silk, catgut and the red-hot platinum loop have been used; but the objection to all of these is the danger of wounding the arteries of the testes with their subsequent atrophy. Delpech was assassinated by a man on whom he had operated several

years before for varicocele, and the testes of the assassin were found to be soft and atrophied.

Since antiseptics have rid modern surgery of so many of its dangers there is no method for the cure of varicocele which equals in certainty and harmlessness that of cutting down on the cords, separating the veins from the artery and vas deferens, ligating the veins above and below, and dividing them between the ligatures. The two following cases will serve to illustrate the method.

Case I. Mr. Elias, a native, unmarried gentleman of Aleppo, 25 years of age and robust, was sent to me in the spring of 1888 at the Johanniter Hospital, by Dr. W. T. Van Dyck, to be operated on for varicocele. There was a large mass of enlarged veins on the left side which caused much pain and frequent nocturnal seminal emissions. This acting on his mind had produced a depressed and melancholic condition, and as a suspensory bandage had not given relief, he desired an operation for a radical cure. After two days' rest, accompanied by a purgative and hot bath, he was put under chloroform and the shaven parts thoroughly cleansed and rendered aseptic. An incision, two inches in length, was then made over the cord from near the external ring downwards. After reaching the cord, the veins were carefully separated from the artery and vas deferens, a catgut ligature passed beneath them about one inch below their exit from the inguinal canal, and they were tied *en masse*. The veins were now drawn partly from the wound, so as to reach them about two inches lower down, where they were again tied, but in four or five different parts, because of their divergence, after which they were divided between the ligatures and replaced in the wound. After this the wound was thoroughly disinfected with sublimate solution, a decalcified drainage tube inserted in its lower angle, and its edges carefully united with silk sutures. Iodoform and antiseptic cotton were used for dressings, and recovery was rapid and uninterrupted. The drainage tube was removed on the fifth day, and some five days later he was

permitted to go home. Two months later I received a message from him stating that he was in the best of health and considered himself entirely cured.

Case II. In the early summer of 1888 I was called in by Dr. Habib Tubagy of Beyrout, Syria, to operate on Mr. Nasif, an unmarried carpenter of that city. Two days previous to this he had been operated on by Vidal's method, but as there was considerable swelling of the scrotum and he was suffering much pain, he desired the radical operation by the open method. After thoroughly cleansing the parts, an incision was made similar to, but somewhat shorter than, that in the former case. The wires were found enclosing the blood-vessels and much cellular tissue, and not tight enough to entirely arrest the flow of blood. After removing the wires, the case was treated exactly as case one, with the exception of using a rubber instead of a decalcified bone drainage tube. This case was not seen by me after the operation, but the doctor informed me that he recovered without a bad symptom, and resumed his work in about two weeks.

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